

Geel 2000 Language Schools

Computer and Information Technology

Prep 2

Name :……………………………………
Class :……………………………………..



(First Unit) Websites

After completing this unit, it is expected that the student should be able to:

1- Recognize some basic scientific concepts and terminology of information technology (website – webpage)
2- Practice Basic processes for dealing with information and communication technology applications.
3- Discuss the impact of the usage of modern information technology services to the different academic and life fields.



Form – some form input controls

After completion of this topic is expected the student should be able to:

- Explain HTML tags
- Employ HTML tags in order to create an interactive webpage
- Perform some HTML operations (add data field/ add a radio button)
- Participates his schoolmates in the learning activities Preface



Dear students:

We've finished in the first semester designing a number of my school site pages which displays information about the school. We have the ability to read the content and navigate through it without any ability to change the content (static webpage)

We will create an interactive webpage through which you can enter your personal data via a form data input elements as in the following illustrate



Form

Dear students, to create a form as it is in the previous illustration and enter your personal data through HTML language, you can use <form> … </form>. With a form element, you can add a group of other elements to a webpage such as buttons and fields used for data entry in order to send these data to storing.
We will learn the different faces to some buttons and data entry fields and how you add to the webpage.

Add Name Field

- To add a text data field for entre a student name, textbox will be added which give ability to the user to enter a string or text data via keyboard

1- HTML language

text box

- To add a previous textbox to a webpage:

<input type = “text”>

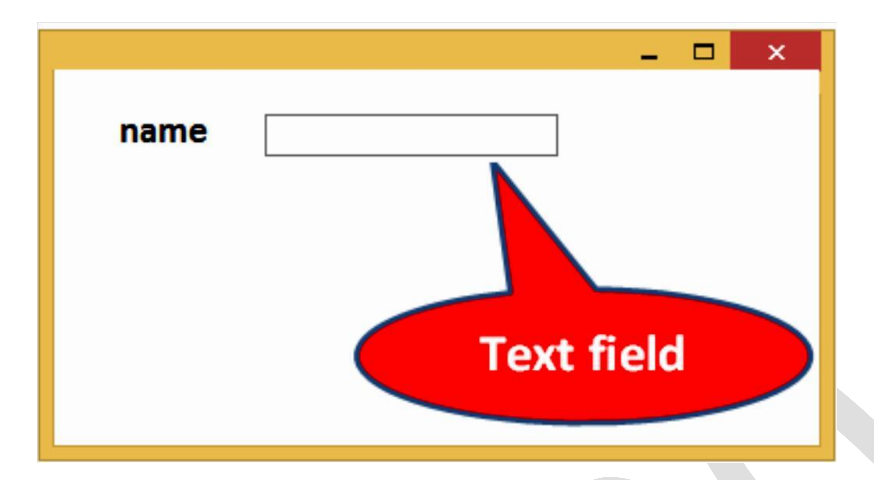


By help of your teacher and participation of your colleagues,

- Create a new text file.
- Write the following HTML tags, and save the file with .html extension.

```
<form>
name
<input type = “text”>
</form>
```

Open the HTML document in an available internet browser, webpage will be shown as follows:



Notice:
After adding a text field, you can type any text within it.

Add Password Field

(*) symbol will be displayed instead of characters to secure a password key



Password field

To add a password field to the webpage
<input type = "password">



By help of your teacher and participation of your colleagues, Required:

- Create a new text file.
- Write the following HTML tags, and save the file with .html extension.

```
<form>
<input type = "password">
</form>
```

Open the HTML document in an available internet browser, webpage will be shown as follows:



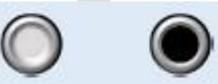
Notice: After adding a password field, you can type any secure text within it.

Add Age Text Field

- By help of your teacher and participation of your colleagues, follow the previous steps to add a data field in order you can type your age.

Add a radio button field

- A radio button field defines a radio button, by which the user can select one of a limited number of options such as your gender (male/female)



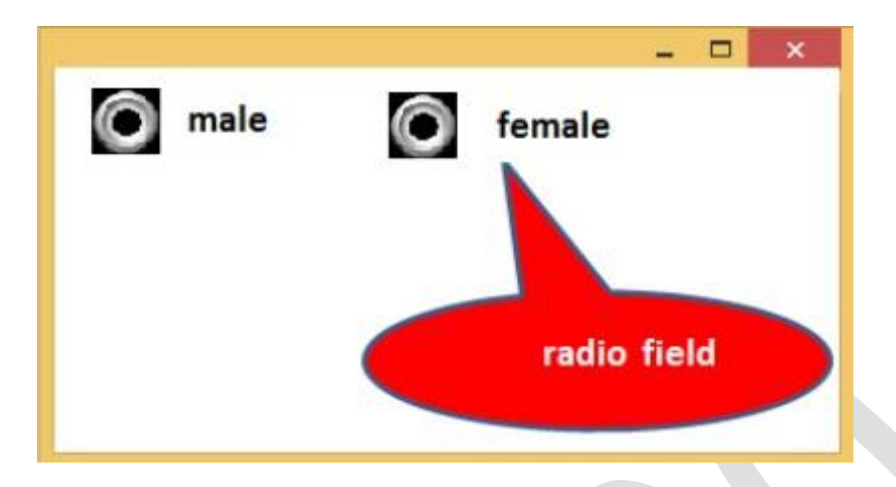
To add a radio button field to the webpage
<input type = "radio" >



By help of your teacher and participation of your colleagues,

- Create a new text file.
- Write the following HTML tags, and save the file with .html extension.

<form>
male<input type = "radio" >
female<input type = "radio" >
</form>



Notice that, you still can choose and select all available options!



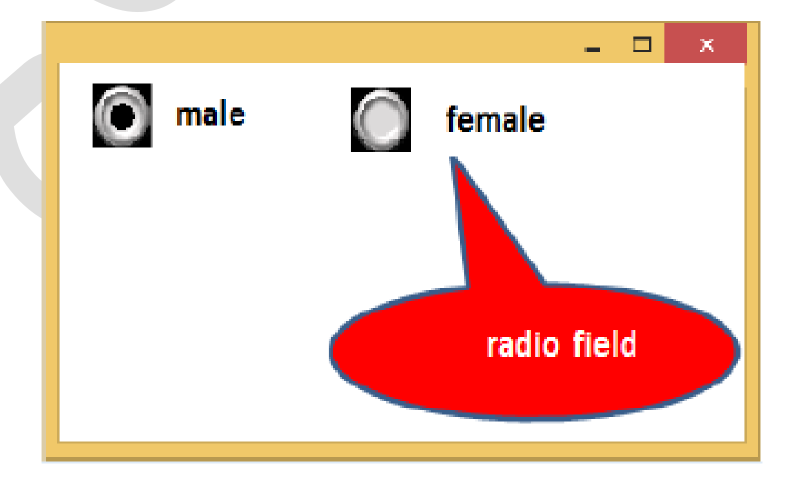
By help of your teacher and participation of your colleagues,

- Search for solving the previous problem about how you can prevent the user from choosing or selecting all available options?

-Of course, you can add name attribute to all available radio buttons with the same value as in the following HTML tags

```
<form>
male<input type = "radio" name="a">
female<input type = "radio" name="a" >
</form>
```

Open the HTML document after the previous editing in an available internet browser, webpage will be shown as follows:





Form: with a Form element you can add a group of other elements to a webpage such as buttons and fields used for data entry in order to send these data to storing.

Text input field: which gives ability to the user to enter a string or text data via keyboard

Password input field: as the same as text field but (*) symbol will be displayed instead of characters to secure a password key

Radio input field: by which the user can select one of a limited number of options such as your gender (male/female)



QUESTIONS AND EXERCISES

Write the scientific term to the following statements:

1. Used with button and data fields to enter data and sending it to the webpage. (...)
2. Give ability to choose or select only one option from many options. (……………………………)
3. In which you can type any text via keyboard on a webpage. (……………….…………..)

Complete the following sentences:

1. To create an interactive webpage for register a student data you add ………… ,....................... used to input data.
2. To add student name input field, you can add …………….. to a webpage.
3. (*) symbol will be displayed instead of original text to secure…………….
4. To choose your gender you can add …………………. To a webpage

Select from (B) column that matches with other from (A) column

(A)	(B)
<input type="text">	Add a textbox field
<input type="password">	Add a radio button field
<input type="radio">	Add a password field
<input type="text">	Add an age input field

Put (√) in front of the correct sentence and (X) in front of the wrong:

1- In a webpage the form element doesn't require sending the entered data to the web server (   )

2- To prevent the user from choosing or selecting more than one option or choice, you can add name attribute to radio input field (   )

3- To add a textbox field in order the user can enter his name, you add radio field (   )



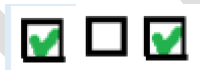
Form elements input fields Continued

- Explain some of the HTML input elements (checkbox – button – submit – reset)
- Type some of HTML tags correctly
- Remind the largest possible number of ideas for using HTML tags
- Show a positive trend towards the importance of HTML language

After you've selected your gender (male/female), we will add checkboxes to give ability to the user that he can select more than one choice at the same time.

Checkbox field

- To select your proficiency language(s), you can add checkbox input field by which you can select more than one choice



- To add checkbox field to a webpage:

<input type = "checkbox">

Note: You can Dear Student repeat the previous command to add more than the selection of the web page Found.



By help of your teacher and participation of your colleagues,

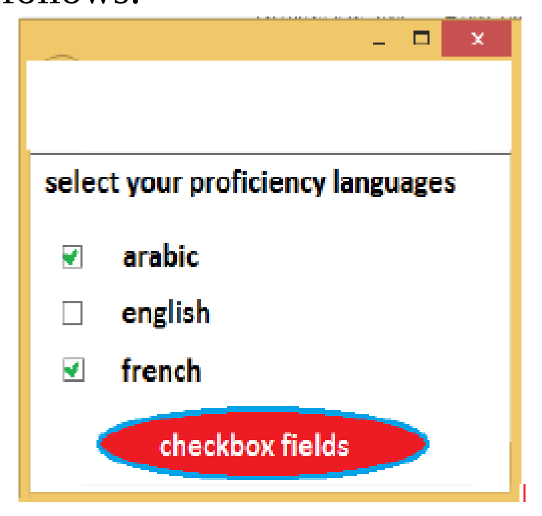
- Create a new text file.
- Write the following HTML tags, and save the file with .html extension.

<form>

- Select your proficiency languages

Arabic **<input type = "checkbox">**
English **<input type = "checkbox">**
French **<input type = "checkbox">**
</form>

- Open the HTML document in an available internet browser, webpage will be shown as follows:



Button input field

The user can click on this to achieve or execute JavaScript function such as clear or save entered data within the form



To add a button to a webpage you can use the following tag
<input type = "button">



By help of your teacher and participation of your colleagues,

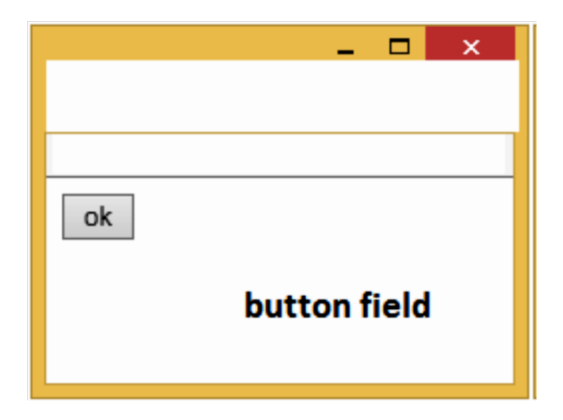
- Create a new text file.

- Write the following HTML tags, and save the file with .html extension.

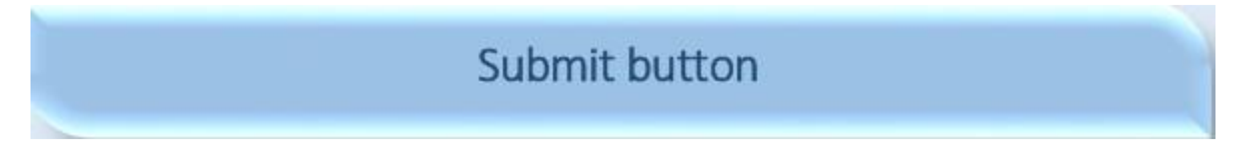
```
<form>
<input type = "button" value="ok">
</form>
```

Button is used when clicking on it execute a certain task or function such as record data or delete data

- Open the HTML document in an available internet browser, webpage will be shown as follows:



Notice: we've used value attribute to assign caption to a button "ok"



The user click this to submit the form data to another webpage assigned by action attribute value of the Form



submit button

-In order to add a submit button to a webpage, you can use the following tags
<input type = "submit">

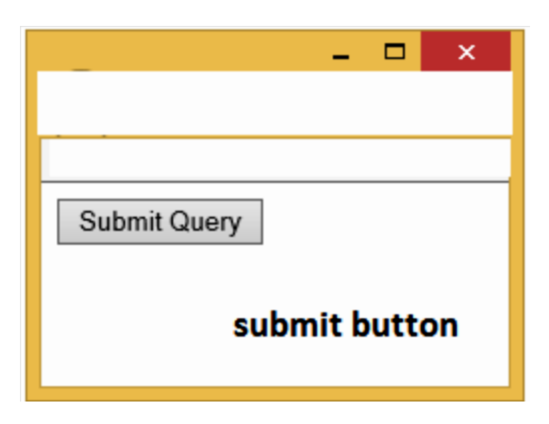


By help of your teacher and participation of your colleagues,

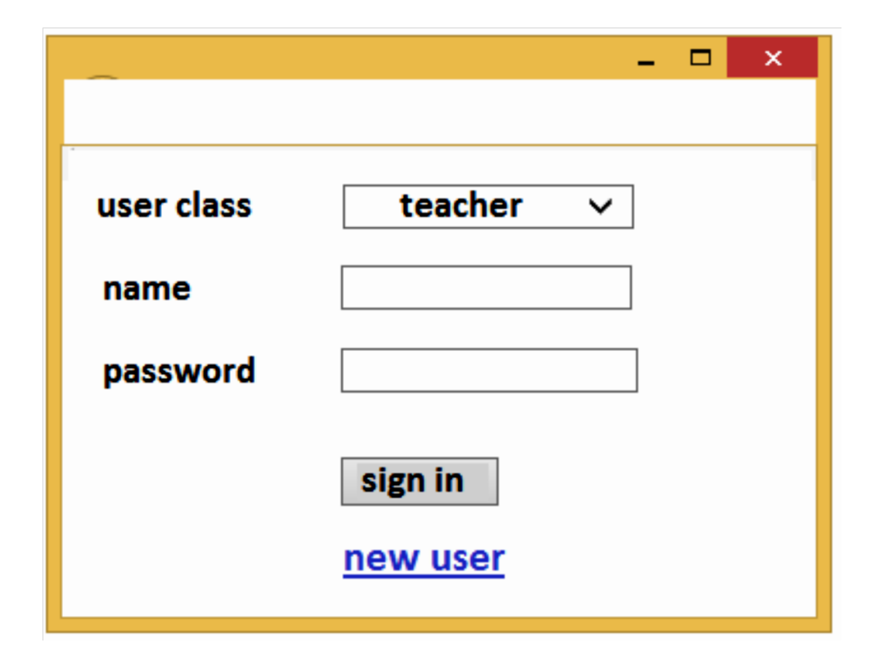
- Create a new text file.

- Write the following HTML tags, and save the file with .html extension.

```
<form action="process.php">
<input type = "submit">
</form>
```



Open the HTML document in an available internet browser, webpage will be shown as follows:
As you see in the previous HTML tags after submit button be clicked all data send to process.php webpage in order to processing via php statements which we will teach in the next years.



Reset button

-The user click it to clear all data fields to its original state
- To add reset button to a webpage:

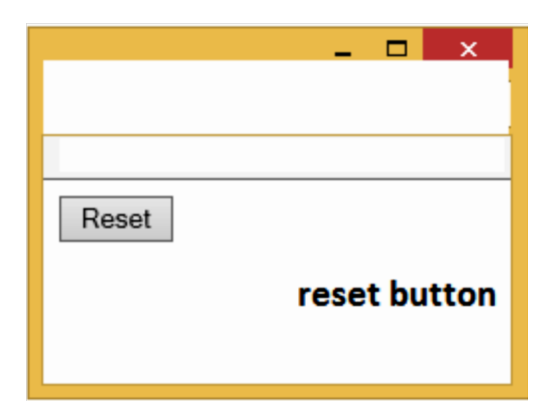
```
<input type = "reset">
```



By help of your teacher and participation of your colleagues,

- Create a new text file.
- Write the following HTML tags, and save the file with .html extension.

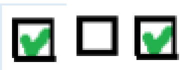
```
<form>
<input type = "reset">
</form>
```



- Open the HTML document in an available internet browser, webpage will look like:



Checkbox field: by which you can select more than one choice.



Button input field: the user can click this to achieve or execute JavaScript function such as clear or save entered data within the form.

Submit button: the user click this to submit the form data to another webpage assigned by action attribute value of the Form.

Reset button: the user click it to clear all data fields to its original state.



QUESTIONS AND EXERCISES

Put (√) in front of the correct sentence and (X) in front of the wrong:

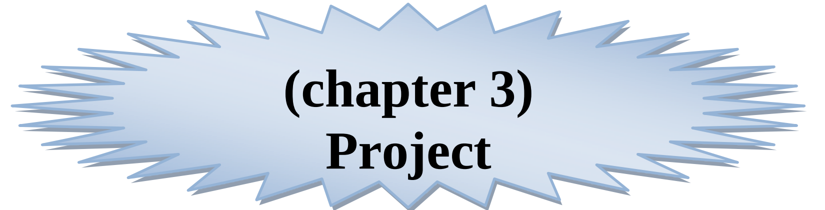
1-To select your proficiency language(s), you can add checkbox input field to a webpage. ( )
2-Name attribute used for display a text on the button. ( )
3-Submit button used to clear input fields from any previous data. ( )

Complete the following sentences:

1-………………. Used to execute task or call JavaScript function
2-………………. Used to send all Form data to other webpage
3-………………. Used to clear all previous data from all input fields

Select from (B) column that matches with other from (A) column:

A	B
<input type="checkbox">	Add a checkbox
<input type="button">	Add a button
<input type="submit">	Add a submit or send button
<input type="reset">	Add a reset or clear button

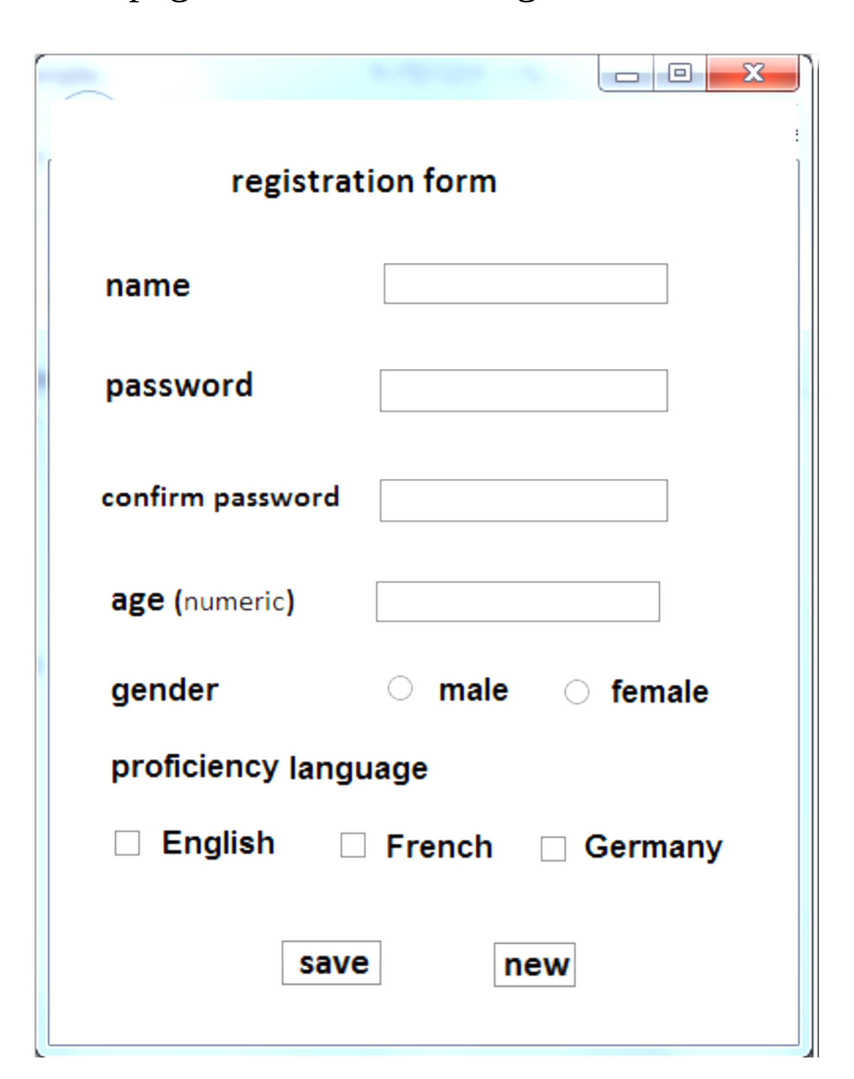


After completing this topic is expected the student should be able to:

- Design an interactive webpage to register his data
- Type an HTML tags to register data correctly
- Appreciate the importance of HTML language for create an interactive Webpage m



- Design a webpage with a registration data Form
- Dear student, using the previous Form and data fields, create an interactive webpage as in the following illustration



```
<html>
<head>
<title></title>
</head>
<body dir="ltr">
<center>

registration form<br><br><br>

<form action="pro.php">

name<input type="text"><br><br><br>

password<input  type="password"><br><br><br>

confirm password<input type="password"><br><br><br>

age (numeric)<input type="text"><br><br><br>

gender<input type="radio">male<input type="radio">female

<br><br><br>

proficiency language

<input type="checkbox">English

<input type="checkbox">French

<input type="checkbox">germany

<br><br><br>

<input type="submit" value="save">
   

<input type="reset" value="new">

</center>
</form>
</body>
</html>
```



(Second Unit)
Java Script Language

After completing this unit , it is expected that the student will be able to:

- Discuss the effect of using the services of the modern information techniques on academic and different life fields.
- Recognize some production tools of information pages and Internet services.
- Produce relatively creative projects using JavaScript language.
- Use technological production tools for support and develop his learning.
- Employs technological communication tools in order to communicate, interact and cooperate with others to support learning

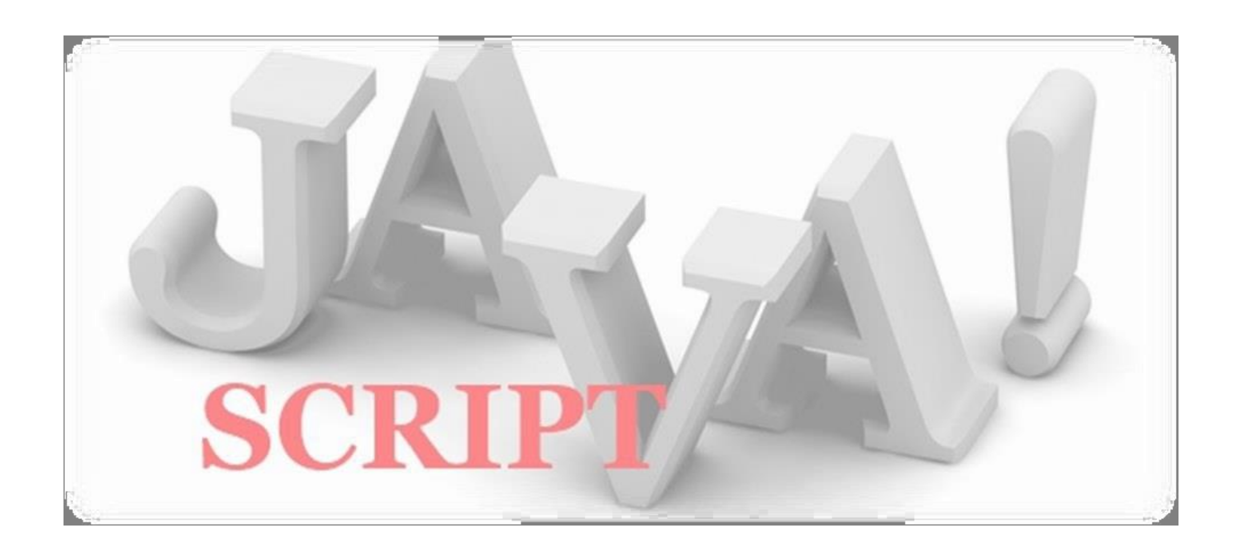




(First Topic)
Basics of JavaScript

After completing this topic, it is expected that the student will be able to:

- Recognize some of the basic JavaScript concepts
- Recognize the basic rules for creating a webpage using JavaScript statements.
- Write a JavaScript language code accurately
- Accept to learn the JavaScript language



Basic Concepts of JavaScript Language

- Introduction

Dear student, to develop an interactive webpage project in order to enter your data and confirm that the entry data is correct , you will need to add a JavaScript statements to your webpage document. This is because HTML language isn't enough to achieve that. We will review some of the basics of programming with JavaScript through this unit.

JavaScript fundamentals:

- JavaScript commands and instructions are called Statements.
- JavaScript commands and instructions (Statements) are written within HTML tags.
- JavaScript statements are written inside <script> ..</script> tag.
- Each statement must end with a semi-colon (;) character.
- The letter case must be considered while writing JavaScript statements.

```
<html>
        <head>
                <script></script>
        </head>
        <body>
                <script></script>
                <script></script>
        </body>
</html>
```

- Document sections in which JavaScript will be written as HTML



- alert() statement used for displaying a message via a dialogue box.

alert("the message");

Notice that, the message must be written within double high quotations.



By the help of your teacher and participation of your colleagues,

- Create a webpage that displays a dialogue box with message "welcome" on loading by the following steps:

Execution:

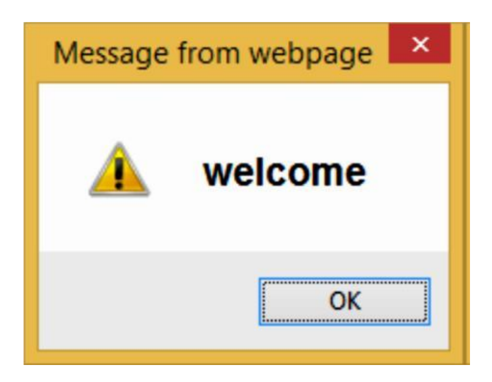
- Create a new text file.
- Write the following HTML tags, and save the file with .html extension.

```
<body>
<script>

alert("welcome");

</script>
</body>
```

- Open the HTML document in an available internet browser, webpage will be shown as follows:



Alert message box

Document .write(...) statement.

Document .write statement is used for displaying text within a webpage contents.



By the help of your teacher and participation of your colleagues,

- Create a webpage displays "computer and information technology subject" text as its content, by the following steps.

Execution:

- Create a new text file.
- Write the following HTML tags, and save the file with .html extension.

```
<body>
<script>

- Document .write("computer and information technology subject");

</script>
</body>
```



alert() statement: used for displaying a dialogue box with message to the user.

document.write() statement: used for displaying a text within the webpage contents.



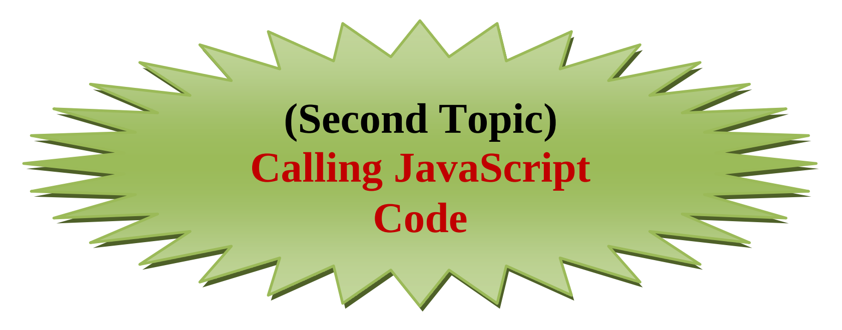
QUESTIONS AND EXERCISES

Write the scientific term to the following statements:

1. The language used to make your registration webpage to interactive (…………………………….)
2. used for displaying a dialogue box with message to the user (…………………………….)
3. used for displaying a text within the webpage contents (…………………………….)

Put (√) in front of the correct sentence and (X) in front of the wrong one:

1. HTML language isn't enough to make a confirmation to the data entry. ( )
2. each statement must end with a semi-colon (;) character. (   )
3. There isn't any different between using small and capital letter while writing JavaScript statements. (   )



After completing this unit, it is expected that the student will be able to:

- Recognize how to call JavaScript code using a button
- Recognize the function structure
- Write JavaScript statement for calling a function
- Employ JavaScript tools in his interactive project
- Participate with his schoolmates in the learning activities

JavaScript statement for calling a function

Dear student, you noticed that all JavaScript statement within <script> …. </script> tag were implemented automatically

If you want the JavaScript statement within <script> … </script> tag to be implemented when an event occurs (such as button click), you should learn about a function

Function

Function is JavaScript statements grouped together in named block and performed according to call it

We will learn to:

- Create a JavaScript function contains a group of statements
- Call the function according to occurrence of a button click

Function creation

To create a function ,we will do the following:

- Write word function and followed with its suitable name
- Write a group of JavaScript statements between { … } curly brackets as shown in the following rectangle.

```
function function_name () {
code to be executed
}
```



By the help of your teacher and participation of your colleagues, Create a function that displays "Arab Republic of Egypt" via a message box

Execution:

- Create a new text file.
- Write the following HTML tags, and save the file with .html extension.

```
<body>
<script>
function country()
{
alert ("Arab republic of Egypt");
}
</script>
</body>
```

NOTICE

- When opening the HTML document in an available internet browser, an empty webpage will be shown, because there isn't any function call to country() function.

To implement any function, first you must call it.

Function call

To call any function, follow these steps:

-Write an HTML tag for displaying a button within webpage.
-Write an 'onclick’ attribute to this button
-Write a function name as the value of that attribute (onclick).

As the following:

```
<input type="button"onclick="function name you need to call">
```



By the help of your teacher and participation of your colleagues,

- Change the previous activity (1-2) so that the country() function can be executed when a button clicked.

Execution:

- Open the previous HTML document
- Change the contents so it will be shown as the following:

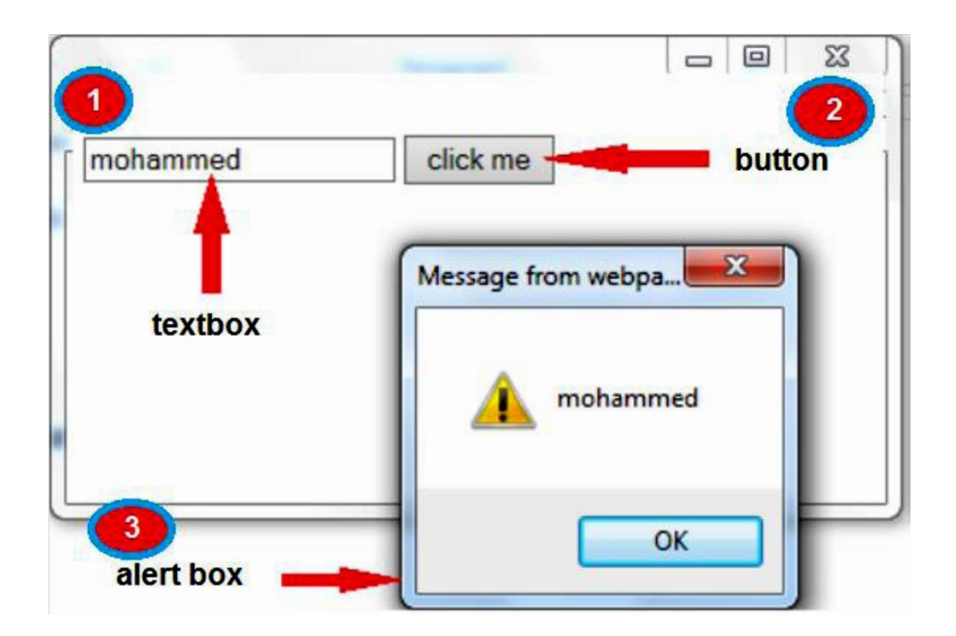
```
<body>
<input type="button"onclick="country()" value="click me">
<script>
function country()
{
alert ("Arab republic of Egypt");
}
</script>
</body>
```

Notice:
- Function will be called and executed only when a button clicked

Textbox content manipulation

In the following figure , we will find

- A textbox and button is displayed, write any text within the textbox
-When a button clicked, an alert box will be displayed in which the content of the textbox can be seen





By the help of your teacher and participation of your colleagues,

- Create a new text file.
- Write the following HTML tags, JavaScript statements and save the file with .html extension.

```
<body>
<form name="form1">
<input type="text" name="t1">
<input type="button"onclick="printTextContent()" value="click me">
</form>
<script>

function print Text Content()
{
alert (form1.t1.value);
}
</script>
</body>
```

Notices:

In the previous HTML document, to use and manipulate the textbox,

- Give a name form1 to the <form> element (name="form1")
- Give a name t1 to the textbox (name="t1")

We can use the value of the textbox through form1.t1.value statement



- **Function** is JavaScript statements grouped together in a named block and perform according to calling it.

- If you want JavaScript statements within <script> … </script> tag to be implemented when an event occurs (such as button click), you should use a function.



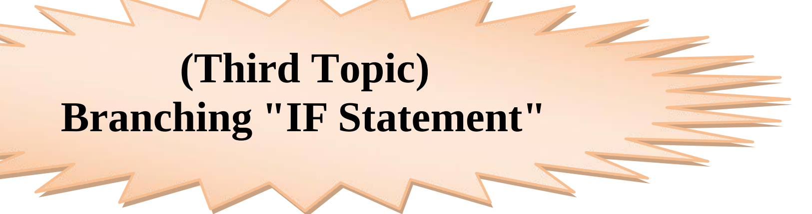
QUESTIONS AND EXERCISES

Complete the following statements:

1. If you want JavaScript statements to be implemented when an event occurs (such as button click), you should use a …………………………..
2. ………………………. is JavaScript statements grouped together in a named block and performed according to call it

Put (√) in front of the correct sentence and (X) in front of the wrong one:

1. Adding a value attribute to the button element for is called a function.(   )
2. We use a "onclick" attribute for writing a text on a button. (   )
3. For reading a textbox content using JavaScript language, you should give a name to the <form> element and give a name to the textbox. (   )
4. JavaScript statement is written inside <script>. (   )

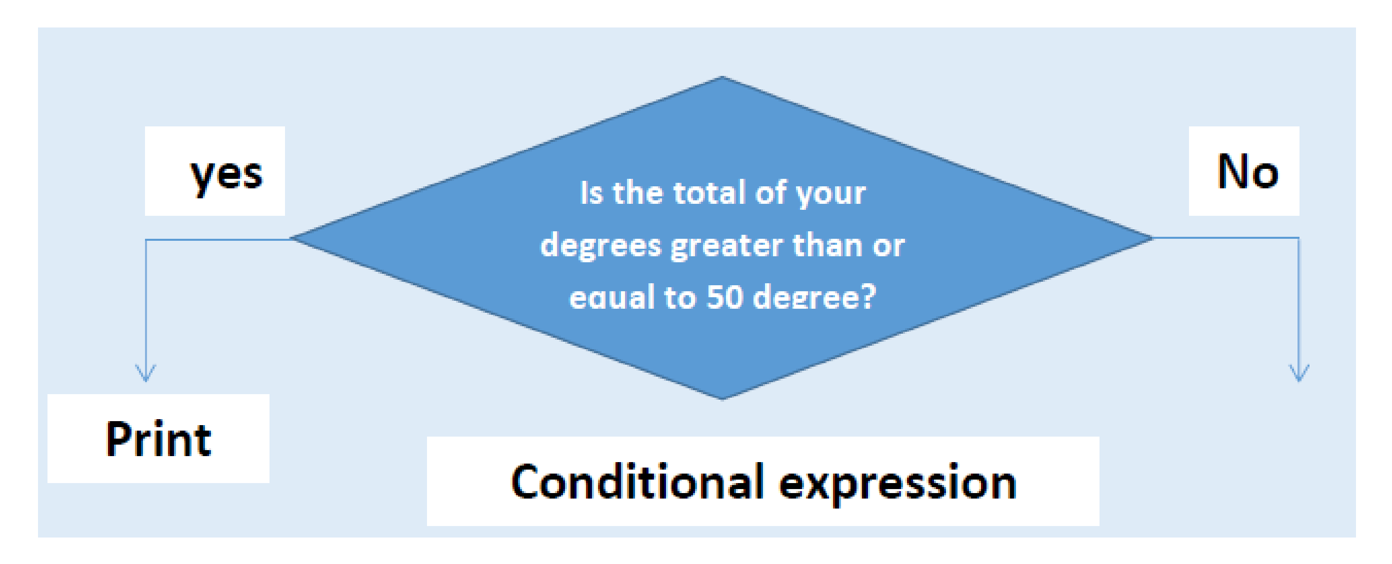


After completing this unit, it is expected that the student will be able to:

- Use some of JavaScript statement to create a webpage
- Solve some examples using branching IF statement
- Participate his schoolmates in the learning activities

Branching

In the previous two topics , you have noticed that, JavaScript statements are being executed one by one. But we may need to execute or non-execute some of these statements according to condition expression result as in the following illustration:



Example:

If the condition result lead to true (total >=50), "success" word will be printed.
To check the condition expression, we will use IF statement as the following:

IF (condition expression)
{ Statements to be executed if the result of the expression is true}

Explanation:

- Condition is expression that must be evaluated first and lead to true or false
- Statements to be executed if the result lead to true found between { } curly brackets.
- If the result lead to false these statements will not be executed.



By the help of your teacher and participation of your colleagues,

- Create a webpage that contains a Form element with:

1- Textbox in which we can type a total of degrees

2- Button on which we can click

3- If the condition result lead to true, an alert box with "success" will be displayed as in the following illustration.



Execution:

- Create a new text file.
- Write the following HTML tags, JavaScript statements and save the file with .html extension.

```
<body>
<form name="form1">
<input type="text" name="t1">
<input type="button" value="click me"onclick="total()">
</form>
<script>
function total()
{
if (form1.t1.value>=50)
{
alert("success");
}
}
</script>
</body>
```



Branching IF statement is written as the following:

if (condition expression)

{ Statements to be executed if the condition result lead to true }



QUESTIONS AND EXERCISES

Write the scientific term to the following statements:

1. Execute or non-execute some of JavaScript statements according to condition expression result.
   (…………………………………..)
2. A statement will be used to check the condition expression.
   (…………………………………..)

Put (√) in front of the correct sentence and (X) in front of the wrong one:

1. If the condition result lead to false, the statements within { } will be executed. (   )

2. If total = 100 then the result of (total > = 100) expression leads to true. (   )

(Fourth Topic)
Validate data entered into web page

After completing this topic is expected the student should be able to:

- Discuss validation of the data to be entered into a webpage.
- Enter data into a webpage form fields
- Participate his schoolmates in entering data to an interactive webpage

Data validation

After you've finished learning basics of JavaScript language, you will use this
language to set a webpage to be an interactive webpage that validates your entered data



By the help of your teacher and participation of your colleagues,

- Discuss with your colleagues that after Form submitted, can you:
- Leave the data field empty
- Type any number of characters in textbox
- Type a different password in the textbox
- Type any data type in data field

You can observe that these data fields accept data without any validation
By the help of your teacher and participation of your colleagues,
discuss if there is any way to avoid these defects.

Of course, you can avoid these defects as following

(Required Field)



By help of your teacher and participation of your colleagues,

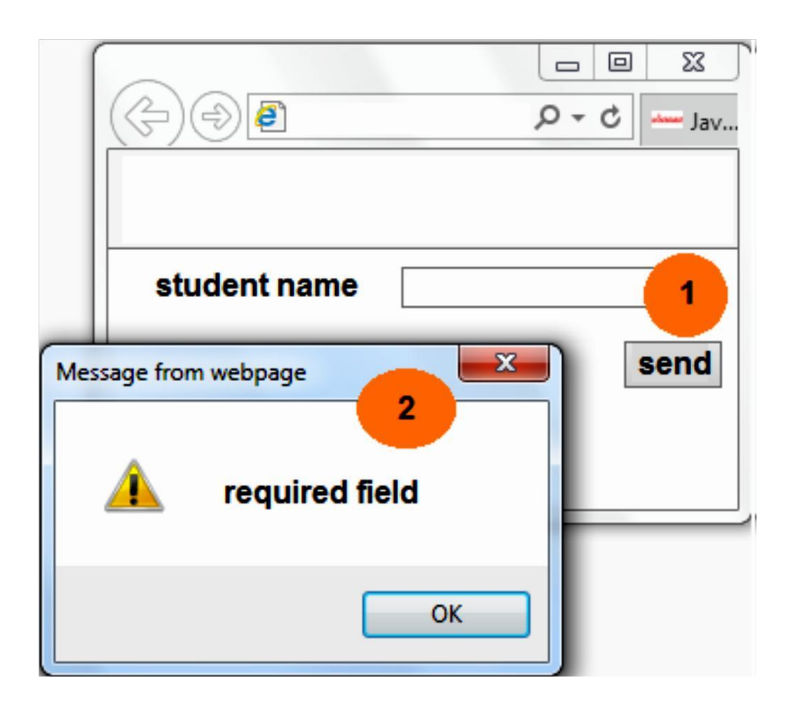
- Create a webpage in which we can see a Form with these elements:

Textbox to enter student name

- Submit button and set value attribute to be "send" to submit the Form

data to get this :

1- If submit button clicked without typing student name an alert box will be displayed to inform us that this field is required



Execution:

```
<form name="form1" action="data.php">
Student name
<input type="text" name="text1" ><br><br>
<input type="submit" value="send" onclick="return f1();">
</form>
<script>
function f1(){
if (form1.text1.value==""){
alert("required field");
return false;
}
}
</script>
```

Explanation:

To add a Form element to webpage, you can use the following tag
<form name="form1" action="required1.htm">

The **name** attribute Specifies a name used to identify the form
The **action** attribute defines the action to be performed when the form is submitted.

Normally, the form data is sent to a web page on the server when the user clicks on the submit button.

To add a textbox to webpage, you can use the following tag
<input type="text" name="text1">

To add a submit button to webpage, you can use the following tag
<input type="submit" value="send" onclick="return f1();">

The **value** attribute specifies the caption for a button
The onclick event occurs when the user clicks on a button, and specifies the JavaScript statements or function name (here the function is f1()) to be executed

To create f1() function that will be called or executed on button clicked, we use the following code:

```
function f1() {
```

To check the content of textbox that is found in the Form form1 through the value attribute

```
if(form1.text1.value==""){
```

To display the alert box with "required field"

```
alert("required field");
```

To return false if the textbox was left empty

returns false;



- Data validation is the process of ensuring that user input was checked.

- Ensuring that the user didn’t leave the field empty is one of the data validation methods

(Fifth Topic)

Continued to validate data entered into web page

After completing this topic is expected the student should be able to:

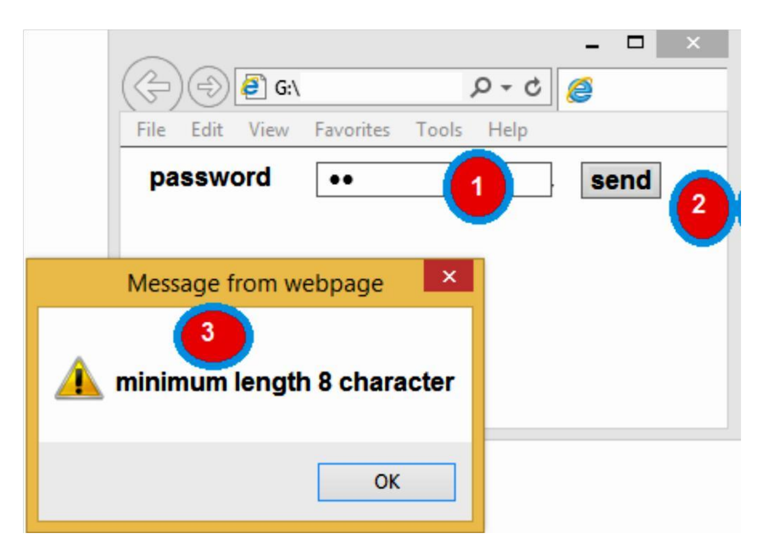
- Discuss validation of the data to be entered into a webpage.
- Enter data into a webpage form fields
- Participates his schoolmates in entering data to an interactive webpage

Data validation

Secondly: define the minimum allowed length for the input



By help of your teacher and participation of your colleagues,
Required:
Create a webpage in which we can see a Form with these elements:
1-Textbox for password input
2-Submit button for form data submission
3-An alert box will be displayed on submit button clicked, if the entered data was less than the minimum allowed length (8 characters)

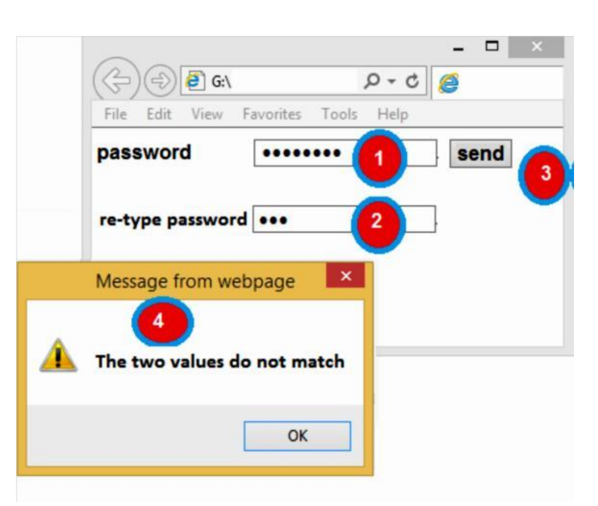


```
<html>
<head>
</head>
<body dir="rtl">
<form name="form1" action="data.php">
<input type="password" id="text1">
<input type="submit" value="send" onclick="return f1();">
</form>
<script>
function f1(){
if (form1.text1.value.length<8){
alert("minimum allowed length 8 characters");
return false;
}
}
</script>
</body>
</html>
```

Third: Matching the data entered in the two fields



By help of your teacher and participation of your colleagues,
Create a webpage in which we can see a Form with these elements:



1-Textbox for password input "enter password"
2-Textbox for re-enter password input "re-enter password"
3-Submit button for form data submission
4-Comparing the content of the two fields, in the case of mismatch the contents show a warning message **"The two values do not match"**

```
<body dir="rtl">
<form name="form1" action="data.php">
password
<input type="password" id="text1">
<br>
Re-type password
<input type="password" id="text2">
<br>
<input type="submit" value="send" onclick="return f1();">
</form>
<script>
function f1(){
if (form1.text1.value!==form1.text2.value){
alert("the two values do not match");
return false;
}
}
</script>
</body>
```

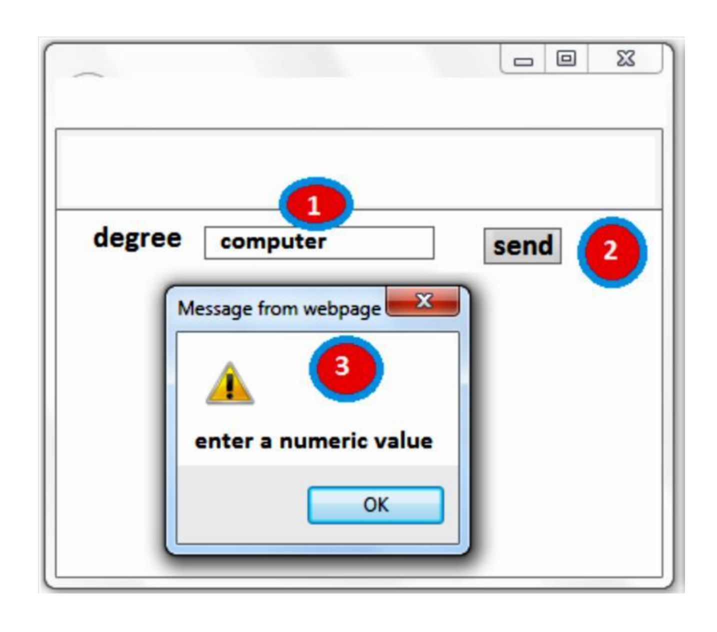
Fourth: Prevent the user from entering type

Fourth: Prevent the user from entering type of data that different of field data Type



By help of your teacher and participation of your colleagues,
Create a webpage in which we can see a Form with these elements:

1-Textbox for data entry
2-Submit button for form data submission
4-check data type of data entry, in the case of enter non-numeric data show a warning message "enter a numeric value"




```
<body dir="rtl">
<form name="form1" action="data.php">
<input type="text" id="text1">
<input type="submit" value="send" onclick="return f1();"/>
</form>
<script>
function f1(){
if (isNaN(form1.text1.value)){
alert("enter a numeric value");
return false;
}
}
</script>
</body>
```



Examples of Data validation methods are like:

- Defining the minimum allowed length for the input field
- Matching the data entered in the two fields
- Prevent the user from entering type of data that different of field data type.



QUESTIONS AND EXERCISES

Complete the following sentences:

Cases of data validation are:

1. Leave the data field empty.
2. ……………………………………………
3. ……………………………………………
4. ……………………………………………

Put (√) in front of the correct sentence and (X) in front of the wrong one:

1. To match the password values, we can use the condition form1.text1.value=="" ( )
2. We add action attribute to <form> element for specify the webpage to which the submitted data will be sent. ( )
3. To create f1() function we used f1(){ ( )
4. To return false as a function returned value in the case the textbox is leaved empty, we used return false; ( )
5. The length of data entered within a textbox is less than or equal to 8 characters form1.text1.value.length<=8 ( )
6. Prevent the user from leave the field empty, we use form1.text1.value!==form1.text2.value ( )
7. Prevent the user from enter a non-numeric data, we use isNaN(form1.text1.value) ( )



After completing this topic, it is expected that the student will be able to:

- Create an interactive webpage
- Develop an interactive webpage
- Compare between the static and interactive webpage
- Appreciate the importance of markup language HTML and JavaScript language in creation of an interactive webpage

Project

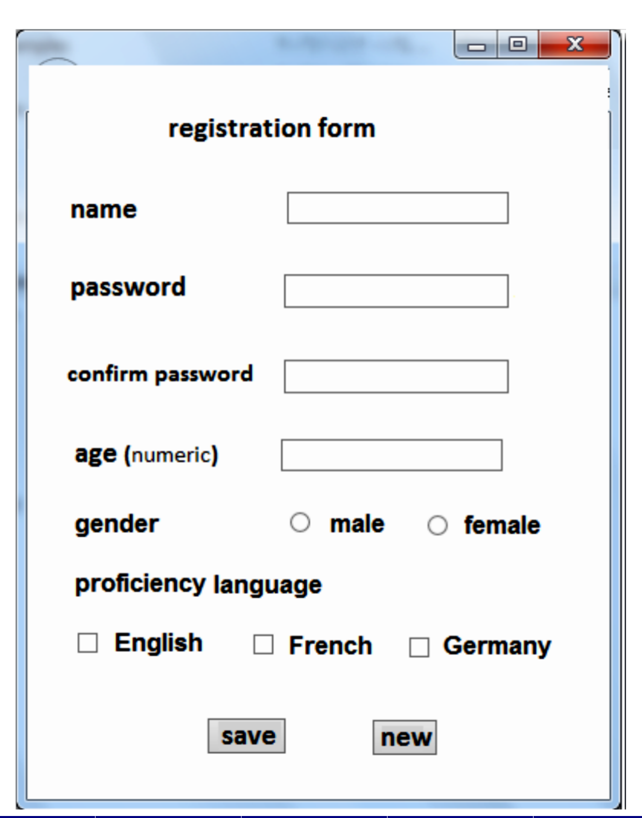
Data validation in the registration webpage

Dear student, by the help of your teacher and participation of your colleagues,

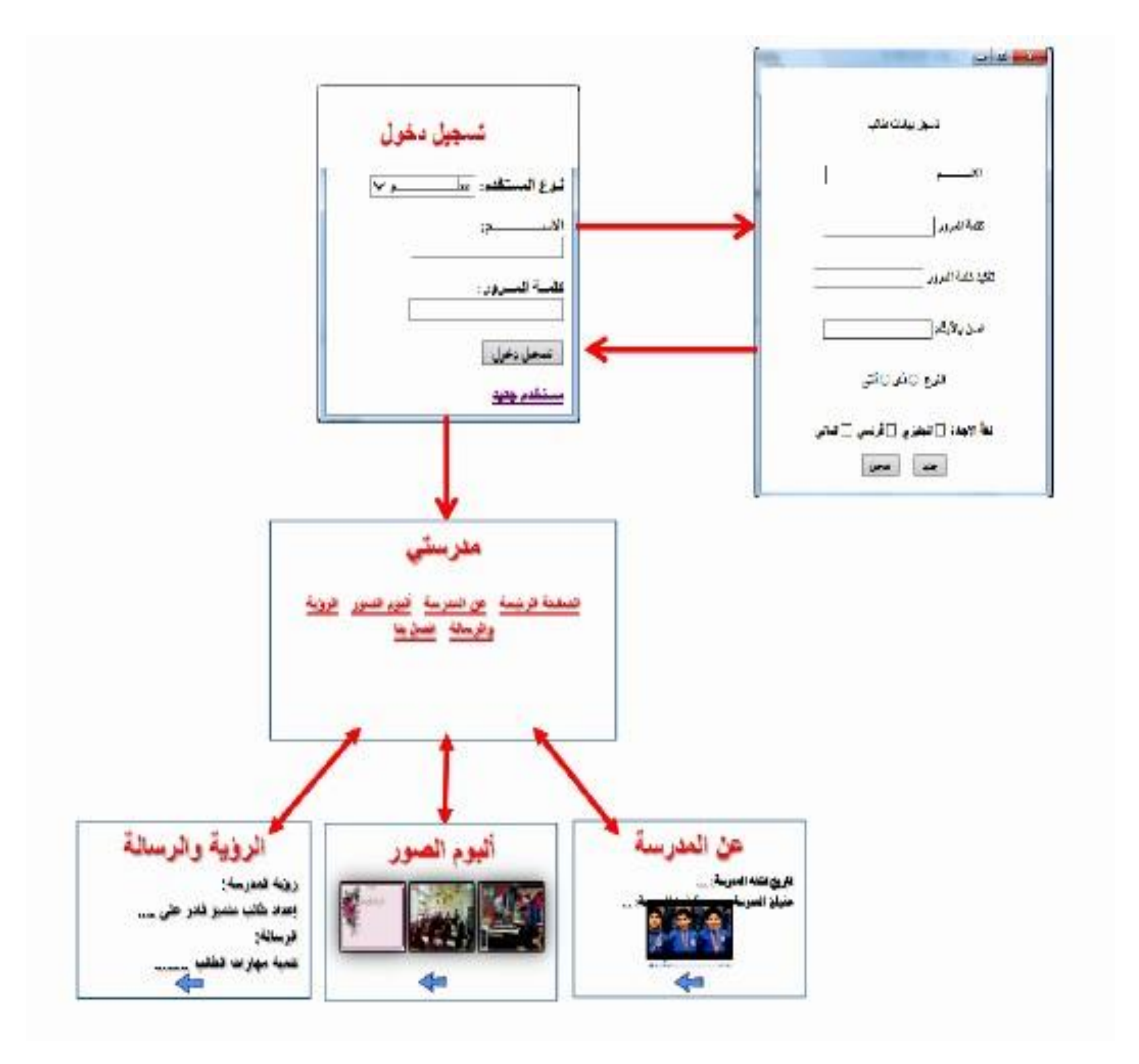
- After you have learnt how to validate input data, complete your previous project (my school) and add a registration webpage.

The validation process can include:

- Prevent user from leave textbox empty (required field)
- The minimum length allowed for the password field is 8 characters
- Matching the data of the two password fields
- Prevent user from enter a non-numeric data into the age field



After save button is clicked, data validation process is done .Then it will be saved and returned to login webpage (which we will learn later on) for finishing registration and enter the home webpage using the name and password that were last be saved



There are many new form tools used for nut data such as :

1. **Color input field**
2. **Date input field**
3. **Number input field**
4. **Require attribute of text input field**

1. **Color input field**

```
<form>
Choose your favorite color
<br>
<input type =” color”>
</form>
```

2. **Date input field**

The user can select a date value from date picker (calendar)
T add a date picker as an input field, you can use the following

```
<input type =” date”>
```

3. **Number input field**

Activity: appear number tool inside the web page for use in the instruction of the numerical values between 1 t 20

```
<form>
Enter a number from 1 to 20
<br>
<input type =” number” min=”1” max=”20”>
<input type =” submit”>
</form>
```

- After you have typed a number, submit the form data through the “submit button “
  In order that the browser checks an entered value, if it was a non-numeric value
  A warning message will be displayed to inform you that you must enter a numeric
- After an entered value isn’t in a range, a warning message will be displayed to inform you that the value must be in an available range.



(Unit Three)
Internet Safety

By the end of this lesson, students will be able to

- Identify the internet Safety concepts
- Identify the different information technology Safety concepts
- Identify the intellectual Safety sides, cultural, ethical, social and religious, concerning the usage of information technology and communication
- Identify the common idioms used on the internet (identity theft – malware- spyware).
- mention as amnay ideas as possible concerning the users of the internet .
- Design a digital image about malusage of internet.
- explain the instructions of internet Safety.
- Appreciate the importance of internet Safety in our life.

Internet Safety

The internet is one of the most important means of communication in all fields which made it important to focus on the dangers that result from this usage. These dangers vary from virus infection, which destroy the system data, attack to spoil the user files or harm or blackmail, deploy identity or personal data theft and other types of dangers. Many people do not know that some information which may be considered useless are so important for others.

In this lesson , we will know how to deal with some of the situations that may appear during internet usage .We will also see some common idioms used on the internet.

Internet Safety

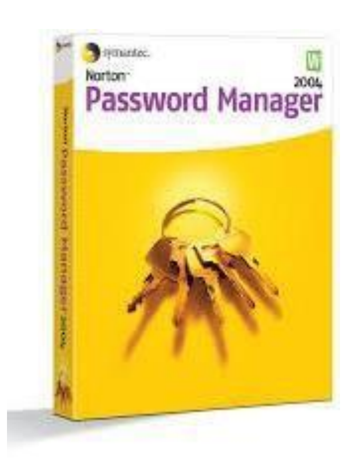
Identity Theft:
It is the impersonation of someone or using his
name to use any concerning information

Malware:
Parasite programs are programs that backdoor
computer systems. The name is derived from Malicious
Software . To protect your system against them , use
antivirus programs and update them continually .

Spyware:
It is computer programs that collect personal
information of the users without their consent. To protect
your computer , you must use anti-spyware programs that
detect programs like spyware, adware and files that control
your internet browser.

Virus:
It is a small program that can spread itself to infect
the computer and programs.

Secret codes:
They are all the personal data that must not be shown to everyone on
the internet like : username, password or mobile phone number





Some situations that may happen to you or to one of your colleagues, discuss them with your teacher and colleagues

First situation:

Sometimes the registration is done by the your Facebook user name and password to sign up for an application. The user is exposed to stealing his account especially when these applications are hacked.

How to deal with this situation:

It is better NOT to sign up for these applications because the main objective behind them is not known, especially if the registration is to done using the password of your account. If this happened, go and change your password at once.

Second situation:

Some users publish their personal and family photos on social media sites.

Problem that may occur

The user may be exposed to blackmail or defame or deal with these photos in an unsuitable way through using image editing programs like Photoshop or so.

How to deal with it

DO NOT publish your personal photos, and when you do make sure that you assigned the viewers to your closest friends.

Third Situation

Publishing personal phone number or personal information like home address or work place when signing up for a forum or creating personal account on social media sites.

Possible Problem

The user can be exposed to house robbery or kidnapping especially young people, when registering uncontrolled.

How to deal with this

DO NOT publish your personal information or any information concerning the user . It is better to hide this information and control young people signing up, not allowing them to publish personal information.

Fourth situation

Talking to strangers for acquaintance and exchange opinions or culture in Facebook.

Possible Problem

They may be some deceit especially when the others are unreal persons. This may lead to dangerous life problems especially when publishing family information.

How to deal with this

Use the social media sites to increase social relationships but you have to make sure about the person you talk to and his real identity. It is better NOT to deal with strangers using fake names.

Fifth Situation

Signing up for job online filling in forms with personal details.

The problem

There may be deceit by unreal companies through advertising unreal job vacancies to just collect personal information and building up a database with this , then using the distinguished people for certain purposes.

How to deal with this

Online application has be well known but you have to take care to apply only for authorized companies and make sure they are real through knowing their real places. It is better to apply only for official or governmental job vacancies online.

Important direction for internet safety

The following are some of the important guideline to better internet Safety:

- Keep your username and password secret.
- Think well before publishing your personal photo or sending text or sound files or videos on the internet.
- Before publishing anything ask the person before publishing his photo or sending their phone number or email address to other people online.
- DO NOT reply to unknown messages or from unknown people
- DO NOT add people you do not know to your friend list.
- Do not send messages when angry.
- Not taking any step towards illegal operation is kind of hiding the wrong doer. So tell an adult directly of anything you doubt.
- Learn how to ban people from reaching chat box andprint or screenshot them to be easy for parents to taek the right step against them.
- Learn how to ban disturbing messages .
- Know well that online chat is not personal , some others may be recording or printing these chats and (publish them later on.

The following idioms are key words for internet search for more information about this lesson.



Some of the most important idioms used in internet safety

Term	Meaning	Term	Meaning
Acceptable Use Policy	الاستخدام المقبول للإنترنت	Cyber Bullying	التعدي الإلكتروني
Asking for Help	طلب المساعدة	Firewall	جدار الحماية
WebBlog	مدونة على الإنترنت	Contempt	الازدراء
Bluetooth	البلوتوث	Identity theft	سرقة الهوية
Chat Room	غرفة الدردشة	LAN	شبكة محلية
Computer Network	شبكات الكمبيوتر	User Name	اسم المستخدم
WAN	شبكة واسعة	Password	كلمة المرور
Malware	برامج ضارة	Malicious	خبيث
MoBlog	مدونة من محمول إلى كمبيوتر	Virus	فيروس
Netiquette	آداب التعامل على الإنترنت	Web cam	كاميرا الويب
Pop Menu	نافذة فقاعية	Secret Codes	الرموز السرية
Spam	رسائل مزعجة	ATM	ماكينات الصراف الآلي
Phishing	التصيد الاحتيالي	Contempt	الازدراء
Social interactive television	التلفزيون الاجتماعي التفاعلي	HappySlapping	الصفع السعيد
Contempt	الازدراء	Spyware	برامج التجسس

Remember

Internet Safety has many topics like

- Identity Theft.
- Malware.
- Spyware
- Virus
- Secret codes.

In the situations that may happen to you or your colleagues take care of the following

- It is better not to sign up for some applications whose goal is not known.
- DO NOT publish personal photos and when you do make sure they are secret.
- DO NOT publish personal information either in social sites or forums and there should be adult control at home.
- Make sure of the real identity of the people you talk to
- When applying for a job online, make sure of the real information of the companies and it is better to apply for official or governmental job vacancies online.



QUESTIONS AND EXERCISES

Complete the following

1. Impersonation of someone or using the personal information of someone or stealing them is called ....
2. ……………………..are computer programs that collect information about users to control or watch them.
3. ……………………..are small harmful programs that can spread and harm computer and programs.
4. Secret codes are the personal information for technology users which must not be shown to anyone like ………………………………
5. Weblog is ……………………………………………

What will you do when …….

1. Talk to a stranger to exchange opinions or culture through social media programs.
2. Applying for job online and providing personal information.

Put (√) or (X) for the following sentences

1. You can publish photos of others or show their phone number online.(   )
2. When online do not answer any unknown messages. (   )
3. Not taking any step against any harm on the internet is kind of hiding wrong doers. (   )
4. Online talk or chat are protected and cannot be copied or printed. (   )

Final computer practical sheet (P.P2)

1- What is the function of each tag:

<input type=”button”>	Add button
<input type=”checkbox”>	Add checkbox
<input type=”submit”>	Add submit or send button
<input type=”reset”>	Add reset or clear button

2- Steps to display dialogue box with message “welcome”:

```
<html>
<body>
<script>
alert(“welcome”);
</script>
</body>
</html>
```



3- Steps to create webpage displays “computer and information technology”:

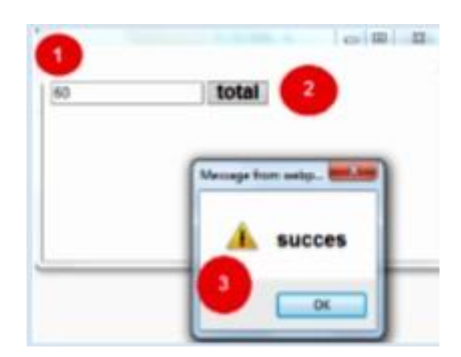
```
<html>
<body>
<script>
document.write(“computer and information technology”);
</script>
</body>
</html>
```

4- **Steps to create button call a function that display (Arab Republic Of Egypt):**

```
<html>
<body>
<input type=”button” value=”click me” onclick=”country()”>
<script>
function country(){
alert(“Arab Republic Of Egypt”);
}
</script>
</body>
</html>
```

5- **The steps to appear message(success) when the degree is greater than or equal 50:**

```
<html>
<body>
<form name=”form1”>
<input type=”text” name=”t1”>
<input type=”button” value=”total” onclick=”total()”>
</form>
<script>
function total(){
if (form1.t1.value>=50){
alert(“success”);
}
}
</script>
</body>
</html>
```



1- **To create f1() function**

Answer: function f1(){

2- **To prevent user from leave the field empty**

Answer: (form1.text1.value==)

3- **To prevent user from enter password less than 8 characters**

Answer: (form1.text1.value.length<=8)

4- **To match the password values**

Answer: (form1.text1.value!==form1.text2.value)

5- **To prevent user from enter a non-numeric data**

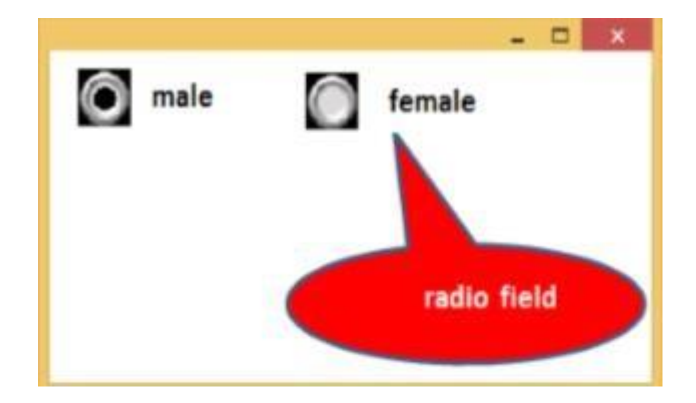
Answer: (isNaN(form1.text1.value))

6- **What is the function of each tag:**

<input type=”text”>	Add textbox field or add age input field
<input type=”password”>	Add password field
<input type=”radio”>	Add radio button field

7- To prevent user from choosing or selecting more than one option:

```
<html>
<body>
<form>
Male<input type="radio" name="a">
female<input type="radio" name="a">
</form>
</body>
</html>
```



Revision sheet (P.P2)

Topic 1:

Form: with a Form element you can add a group of other elements to a webpage such as buttons and fields used for data entry in order to send these data to storing.

Text input field: which gives ability to the user to enter a string or text data via keyboard.

Password input field: as the same as text field but (*) symbol will be displayed instead of characters to secure a password key.

Radio input field: by which the user can select one of a limited number of options such as your gender (male/female).

Write the scientific term to the following statements:

1. Used with button and data fields to enter data and sending it to the web page.

   (Form)

2. Give ability to choose or select only one option from many options.

   (Radio input field)

3. In which you can type any text via keyboard on a webpage.

   (Text input field)

Complete the following sentences:

1. To create an interactive webpage for register a student data you add **text box**, **radio button** used to input data.

2. To add student name input field, you can add **text box** to a webpage.

3. (*) symbol will be displayed instead of original text to secure **a password key**.

4. To choose your gender you can add **radio button** to a webpage.

Select from (B) column that matches with other from (A) column:

	(A)		(B)
1	<input type= "text">	1	Add a textbox field
2	<input type="password">	3	Add a radio button field
3	<input type= "radio">	2	Add a password field
4	<input type= "text">	4	Add an age input field

Put (√) in front of the correct sentence and (X) in front of the wrong:

1- In a webpage the form element doesn't require sending the entered data to the web server (x)
2- To prevent the user from choosing or selecting more than one option or choice, you can add name attribute to radio input field (√)
3- To add a textbox field in order the user can enter his name, you add radio field (x)

Topic 2:

Checkbox field: by which you can select more than one choice

Button input field: the user can click this to achieve or execute JavaScript functionsuch as clear or save entered data within the form

Submit button: the user click this to submit the form data to another webpage assigned by action attribute value of the Form

Reset button: the user click it to clear all data fields to its original state

Put (√) in front of the correct sentence and (X) in front of the wrong:

1-To select your proficiency language(s), you can add checkbox input field to a webpage. (**√**)

2-Name attribute used for display a text on the button. (**x**)

3-Submit button used to clear input fields from any previous data. (**x**)

Complete the following sentences:

1-**button input field** Used to execute task or call JavaScript function

2-**Submit button** Used to send all Form data to other webpage

3-**Reset button** Used to clear all previous data from all input fields

Select from (B) column that matches with other from (A) column:

	(A)		(B)
1	<input type="checkbox">	1	Add a checkbox
2	<input type="button">	2	Add a button
3	<input type="submit">	3	Add a submit or send button
4	<input type="reset">	4	Add a reset or clear button

Topic 3:

JavaScript fundamentals:

- JavaScript commands and instructions are called Statements.

- JavaScript commands and instructions (Statements) are written within HTML tags.

- JavaScript statements are written inside <script> ..</script> tag.

- Each statement must end with a semi-colon (;) character.

- The letter case must be considered while writing JavaScript statements.

Notice that:

The message must be written within double high quotations as (“ the message”).

alert() statement: used for displaying a dialogue box with message to the user.
document.write() statement: used for displaying a text within the webpage contents.

Write the scientific term to the following statements:

1. The language used to make your registration webpage to interactive.
   (Java script)
2. used for displaying a dialogue box with message to the user.
   (alert)
3. used for displaying a text within the webpage contents.
   (document.write)

Put (√) in front of the correct sentence and (X) in front of the wrong one:

1. HTML language isn’t enough to make a confirmation to the data entry. (√)

2. Each statement must end with a semi-colon (;) character. (√)

3. There isn’t any different between using small and capital letter while writing JavaScript statements. (x)